

REMARKS/ARGUMENTS

These remarks are made in response to the Office Action of 24 December 2008 (Office Action). This response is filed after the expiration of the 3-month shortened statutory period together with a petition for a one month extension of time. The Examiner is authorized to charge the extension fee and any deficiencies or credit any overpayments to Deposit Account No. 50-3610.

I. 35 U.S.C. § 101 REJECTION

Claims 2, 7 and 12 were rejected because of the term “additional” being included in the claims. Applicants have amended the claims to exclude the objected-to word.

In the amendment, Applicants have stated that the extendable billing functions are billing functions other than said plurality of first billing functions. This is supported by page 10, and is consistent with the concept of extensibility of a Web service interface, which is clear to one of ordinary skill in the art in context of the claims.

Consequently, the 35 USC § 101 rejections should be withdrawn, which action is respectfully requested.

II. 35 U.S.C. § 112, second paragraph REJECTION

Claims 2, 7, and 12 were rejected as being indefinite under the same reasoning as the above 35 USC § 101 rejection. The claim amendments to these claims as noted above should correct any deficiencies with those claims. Consequently, the 35 USC § 112 rejections should be withdrawn, which action is respectfully requested.

III. 35 U.S.C. § 103(a) REJECTIONS

The Examiner rejected Claims 1-16 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Publication No. 2002/0138828 to Robohm, *et al.* (hereinafter “Robohm”) in view of “AXS-One Launches Web Services for Service Industries,” Worldwide Videotex Update, Boston, Vol. 21, No. 4, April 1, 2002 (hereinafter “Videotex”).

The Examiner rejected Claims 17-20 under 35 U.S.C. § 103(a) as being unpatentable over Robohm in view of “How to get Started With Server-side Java,” by Hunter (hereinafter “Hunter”), in further view of U.S. Pub. No. 2004/0064411 to Tsui, *et al.* (hereinafter “Tsui”) and Videotex. (*Note*, Examiner cited 2004/0066411 for Tsui, presumably by mistake – that patent is for Fung, *et. al* and does not appear to be related to the present application).

RE: TSUI

Tsui is the US Publication of the present application and is therefore an invalid art reference. Applicants respectfully request the Examiner remove Tsui as a prior art reference. Applicants are assuming that the Examiner is citing the background of Tsui as an admission and not actually citing Tsui as a prior art reference, which would be improper.

RE: ROBOHM

The Examiner has asserted in the Office Action that Robohm does not disclose “providing a Web service interface for a billing service in a distributed network. Applicants agree and emphasize that Robohm makes no mention of Web services in any fashion.

Robohm’s cited teachings (paras. 0008, 0034, 0035, 0057; FIGS. 3, 13, 14, and 20-27) are all teachings for a “web based interface”. As described by Robohm, a Web based interface is a graphical user interface (GUI) able to be presented within a Web browser. This is also true of the network interface 320 of FIG. 3 (e.g., from para. 0036 “The network interface 320 provides a graphical user interface that allows users to access the components of the OSS 130”).

By definition, a user interface permits user-to-computer interactions. (Web sites for user interface definitions provided for Examiner convenience)

<http://dictionary.reference.com/browse/user%20interface>

[http://en.wikipedia.org/wiki/User_interface\](http://en.wikipedia.org/wiki/User_interface)

A graphical user interface is a visual user interface through which users interact with a computer (receive visual output from the computer and generate visually displayed input for the computer).

Applicants claim a web service interface. A Web service interface is a machine-to-machine interface. (*see* from Application page 4, ln 5-9; page 10, ln 31-37; page 11, ln 7-30; etc. ...) (Web sites for user interface definitions provided for Examiner convenience)

http://en.wikipedia.org/wiki/Web_service

<http://www.oasis-open.org/committees/wsia/glossary/wsia-draft-glossary-03.htm>

<http://www.oncgcology.org/misc/glossary.html>

A human-to-machine interface is not the same (or even conceptually similar from a computer science perspective) as a machine-to-machine interface. It is not obvious to apply teachings for GUIs to machine-to-machine interfaces. (NOTE – the Examiner made no such claims in the Office Action, but it is believed this distinction was overlooked).

The rationale to combine Robohm with Videotex was KSR rationale A (from page 7 of the Office Action). Under this rationale (From Docket No.: PTO–P–2007–0031 Examination Guidelines for Determining Obviousness Under 35 U.S.C. § 103 in View of the Supreme Court Decision in KSR International Co. v. Teleflex Inc.)

<http://www.uspto.gov/go/cg/2007/week45/patguide.htm>

The following must be true:

(1) a finding that the prior art included each element claimed, although not necessarily in a single prior art reference, with the only difference between the claimed invention and the prior art being the lack of actual combination of the elements in a single prior art reference;

(2) a finding that one of ordinary skill in the art could have combined the elements as claimed by known methods, and that in combination, each element merely would have performed the same function as it did separately;

(3) a finding that one of ordinary skill in the art would have recognized that the results of the combination were predictable; and

(4) whatever additional findings based on the Graham factual inquiries may be necessary, in view of the facts of the case under consideration, to explain a conclusion of obviousness.

Applicants note that the second requirement “each element would have performed the same function as it did separately” is not satisfied. That is, the interface of Robohm is a human-to-machine interface and it is being cited for teaching a “machine-to-machine” interface. Thus, the element (interface) of Robohm is not performing the same function, as required by rationale A.

Additionally, Robohm is clear in scope (para. 0005 “there is a need for a system and method that allows users to modify service attributes...”) and emphasizes that its novelty is that users can interface with a machine to make changes, which previously were only able to made by system administrators, which took time (para. 0004) and human-to-human interactions.

From MPEP 2143.01, Sec 5, a proposed modification cannot render prior art unsatisfactory for its intended purpose (quote from MPEP follows):

**THE PROPOSED MODIFICATION CANNOT RENDER THE PRIOR ART
UNSATISFACTORY FOR ITS INTENDED PURPOSE**

If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984) (Claimed device was a blood filter assembly for use during medical procedures wherein both the inlet and outlet for the blood were located at the bottom end of the filter assembly, and wherein a gas vent was present at the top of the filter assembly. The prior art reference taught a liquid strainer for removing dirt and water from gasoline and other light oils wherein the inlet and outlet were at the top of the device, and wherein a pet-cock (stopcock) was located at the bottom of the device for periodically removing the collected dirt and water. The reference further taught that the separation is assisted by gravity. The Board concluded the claims were *prima facie* obvious, reasoning that it would have been obvious to turn the reference device upside down. The court reversed, finding that if the prior art device was turned upside down it would be inoperable for its intended purpose because the gasoline to be filtered would be trapped at the top, the water and heavier oils sought to be separated would flow out of the outlet instead of the purified gasoline, and the screen would become clogged.).

It is clear that any modification of Robohm from its teachings of a user-to-machine interface, which is required by satisfy Robohm’s intended purpose (*see* paras. 0005 and 0006), to cover the

machine-to-machine interface as claimed would be improper under MPEP 2143.01, Sec 5. That is, changing Robohm's teachings to mean "a machine-to-machine" interface would not permit a human "to modify service attributes ..." (para. 0004 of Robohm) or "allow users to make changes to telecommunication services in substantially real time" (para. 0005 of Robohm).

Additionally, Applicants point out from MPEP 2141.02 that:

"In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); *Schenck v. Nortron Corp.*, 713 F.2d 782, 218 USPQ 698 (Fed. Cir. 1983)."

When considering the claimed invention as a whole, the differences between a machine-to-machine interface and the Web service interface as claimed become so significant that the cited portions for the claimed limitations do not actually make sense. For example, in Claim 1, the following limitation exists:

a plurality of object classes, each of said object classes defining objects for storing data utilized by said billing engine and for communicating said data to said billing engine through at least one implemented application programming interface of said web service interface, said web service interface being used to provide said billing service as a web service that is configured to be invoked by said computing applications in said distributed network.

The Examiner cites FIG. 13 of Robohm for this limitation, even though FIG. 13 merely shows a GUI, which is unrelated to the claimed limitation. (Some of the words can be possibly mapped, but these words in a human-to-machine interface concept do not correspond to the claimed concept, which is directed exclusively to Web service interfaces (as claimed) that are machine-to-machine interfaces).

Basically, Robohm is not a good reference against the claimed invention, as Robohm provides teachings specific to a human-to-machine interface and is silent regarding teachings (actually teaches away from) a machine-to-machine or Web service interface as claimed.

In the Office Action, Robohm was combined with Videotex and Hunter. Videotex and Hunter are both magazine articles. Videotex stating that AXS-one has implemented Web services.

No details are provided in Videotex (or Hunter) that could permit Videotex (or Hunter) to cure the deficiencies of Robohm. The Examiner has used the Videotex and Hunter references to provide that the basic concept of Web services, which were relatively novel at the time of filing, existed to some extent. The same is expressed by the Applicants' background at page 2, ln 10-26.

Applicants have shown that Robohm fails to teach claimed limitations of the independent claims for which it is cited. Other references cited in the §103 rejection (Videotex, Hunter, and Tsui, where Tsui is an improper reference as stated above) fail to cure these deficiencies. Accordingly, the §103(a) rejections to claims 1-20 over Robohm in view of Videotex (in view of Hunter/Tsui) should be withdrawn, which action is respectfully requested.

Regarding the dependent claims, the Examiner has failed to show how the cited references teach claimed limitations. The Examiner has stated:

Claims 3-5 are similarly rejected by the recitation provided for Claim 2.

Claims 6-16 are rejected by the recitation provided by Claims 1-5.

Claim 3 includes a limitation of:

“wherein the web service interface defined for the billing account service comprises APIs associated with the following first billing functions ...”

Claim 4 includes a limitation of:

“ ... wherein the web service interface defined for said rating service comprises APIs associated with at least the following first billing functions ...”

Claim 5 includes a limitation of “wherein the plurality of object classes define one or more of the following ...

Claim 11 includes a limitation of: “said web service interface comprises a plurality of APIs, each of said APIs is associated with a first billing function, each of said APIs ...

Claim 13 defines six different billing functions (not present in any prior art – each of which is included in the claim limitation, these limitations are not required by Claims 1-5 as claimed) associated with APIs.

Claim 14 defines six different billing functions (not present in prior art and not required by Claims 1-5 as claimed).

In short, Claims 3-16 include limitations not present in Claims 1 and 2, which are not present in the cited references and which have not been evaluated by the Examiner. Thus, the Examiner has failed to make a proper *prima facie* rejection of these claims, which are believed to be in an allowable state over the cited art.

Applicants respectfully request the Examiner elaborate upon these dependent claims and their limitations in subsequent office actions or to indicate that these dependent claims include allowable subject matter.

IV. COMMENTS CONCERNING STATE OF THE ART APPLICABLE TO THE PRESENT INVENTION

Applicants note that knowledge of Web services (existing today) is very different to the state of the art of Web services existing at the time the invention was filed (September 30, 2003). This is especially important when considering whether it would have been obvious to combine Web service teachings with those of prior art, or whether prior art teachings contemplated a use of Web services, which has been expressed in various manners in prior Office Action Replies on the instant case.

Applicants include the below statements (and citations), which may be helpful to the Examiner in his determinations for resolving the level of ordinary skill in the art applicable to the instant Application. Applicants do not warrant nor infer that the following are supposed to define the state of the art, which is instead indicated via the references disclosed in the IDS and those discovered by the Examiner during prosecution, all of which are part of the present record. The Examiner should not base his decision upon the following, which are merely shown in an attempt to be helpful and to expedite prosecution, which thus far has included many references not completely applicable because of their age relative to a state of the art of Web services at the time of the references and/or at the time of filing.

http://news.cnet.com/2100-7345_3-5078305.html (September 17, 2003)

- “But Web service is in its infancy. While effective, the technology can only connect applications at a rudimentary level.”
- “Brodie said the technological difficulty of building such systems is daunting and has not been adequately addressed by vendors. And if history is any indicator, it may be some time before key challenges, such as automatically describing, finding and using Web services without human intervention, will be solved. These problems require challenges to be addressed to an extent that has not been achieved in the history of computer science,” Brodie said.

<http://www.computerweekly.com/Articles/2003/11/24/198894/users-cautious-on-web-services.htm> (November 24, 2003)

- “Jonathan Pettus, a manager in the integration project office at NASA's Marshall Space Flight Center, noted "the hype" around web services but said it's "very naive" to think that an application that supports XML can solve a company's integration problems.”
- “Schulte also predicted that web services between heterogeneous systems over HTTP in high-throughput, low-latency scenarios won't be possible in the foreseeable future”

(APPLICANTS NOTE: Robohm – claiming priority to March 20, 2001, teaches a low-latency, high-throughput system, such as the one described that Schulte states is not possible to implement with Web services – as of Nov. 24, 2003)

Applicants emphasize that the above references are not to be construed as assertions by Applicants regarding a state of the art, and that the present application and prosecution should not be subject to future critiques on that basis. The above listings are simply published statements made by others proximate to the filing date of the present application, which are provided for Examiner consideration.

V. AMENDMENTS

Applicants have amended a number of dependent claims. These amendments are fully supported by the specification and no new matter has been added.

Claims 3, 4, 5, 8, 9,10, and 15 have been amended to state that at least three <of a listing of elements> is to be included as a limitation (as opposed to at least one).

Claims 11 and 16 were amended to correct minor grammar errors.

CONCLUSION

Claims have been adjusted to overcome Examiner concerns expressed as 35 USC § 101 and § 112 rejections. Regarding the 35 USC § 103(a) rejections, Applicants have shown how

teachings of Robohm are directed towards human-to-machine interfaces and not machine-to-machine interfaces as claimed. Hence, not all claim limitations are taught by combinations of Robohm and Videotex (and Hunter). On this basis alone, the 35 USC § 103(a) rejections should be withdrawn.

Additionally, no proper motivation exists to combine Robohm with Videotex (or Hunter). Applicants have noted how contemporaneous writings (e.g., Schulte excerpt cited above) have indicated that it would not be possible to combine implement low latency solutions (such as those taught by Robohm) as Web services. Further, no proper basis exists for combining teachings of Robohm with Videotex. The KSR rationale A fails (as described above). Additionally, MPEP 2143.01, Sec 5 appears to prevent such modifications of Robohm (needed to use Robohm as a 35 USC § 103 references as indicated). This is another basis for withdrawing the 35 USC § 103(a) rejections to Claims 1-20, which action is respectfully requested.

The invention as claimed (Claims 1-20) should be in allowable condition. The Applicants request that the Examiner call the undersigned (954-745-0373) if clarification is needed on any matter within this Reply, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,

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